IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

AMPEX CORPORATION, Plaintiff, v. EASTMAN KODAK COMPANY, ALTEK CORPORATION and CHINON INDUSTRIES, INC., Defendants.	C.A. No. 04-1373-KAJ **REDACTED**

DEFENDANTS EASTMAN KODAK COMPANY AND ALTEK CORPORATION'S RESPONSIVE CLAIM CONSTRUCTION BRIEF

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Dated: June 9, 2006

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I. INTRODUCTION

Defendants Eastman Kodak Company and Altek Corporation ("Defendants") submit this brief in response to Plaintiff Ampex Corporation's Opening Claim Construction Brief (D.I. 300).

Ampex accuses Defendants of offering litigation-inspired claim constructions, yet that is exactly what Ampex has done. Over the past two years, Ampex has offered six different claim constructions in its effort to stretch the claims of the '121 patent to cover Defendants' digital cameras. One of the primary purposes of patent claims is to provide clear notice to the public of the scope of the claimed invention. If it takes Ampex's lawyers *two years* and *six tries* to arrive at its proposed constructions for a patent for which Ampex applied over twenty years ago, the proposed constructions can hardly satisfy the patent statute's public notice requirement.

Ampex's constructions are really a reflection of the manner in which Ampex now wishes the claims were written rather than as they actually are. In its attempt to rewrite the claims, Ampex flouts the basic and fundamental principles of claim construction:

- Ampex proposes constructions that render key terms meaningless. In some instances, it even proposes constructions that are the precise opposite of the claim terms' plain meaning: that "external" can mean "internal," that "selectively" can mean "non-selectively," and that "either . . . or" can mean "both." (*See, e.g.*, D.I. 300, at 32, 33, and 35.)

- Ampex disregards the specification, at times going so far as to dismiss portions inconsistent with its proposed constructions as simply "*irrelevant.*" (*See, e.g., id.* at 33 (emphasis added).)

- Ampex relies on early passages from the prosecution history that it contends support its constructions without informing the Court of subsequent events that, in many instances, directly contradict its position. (*See, e.g., id.* at 24-25.) Ampex similarly dismisses portions of the prosecution history not to its liking, in one instance referring to its own prosecuting attorney's definition of a claim term as an "*inadvertent overstatement.*" (*See, e.g., id.* at 30 (emphasis added).)

- Without support in the intrinsic evidence, Ampex resorts to a number of creative yet unfounded theories: it asserts that certain features must be claimed because

they were in the prior art (*see, e.g., id.* at 24, 27); that there is a legal presumption of automatic operations (*see, e.g., id.* at 10-11); and that the "logic of the language of the claims" can create a limitation where there is none (*see id.* at 23).

- Finally, Ampex resorts to a wholesale reliance on extrinsic evidence entirely divorced from the context of the '121 patent, for instance, offering a 200-paragraph declaration from one of its purported experts. Even its own experts, however, frequently do not agree with Ampex's proposed constructions. (*See, e.g.*, Defendants' Opening Claim Construction Brief (D.I. 299), at 16-17, 35 (quoting Cavallerano Dep., at A-616 to A-617, A-621).)[1]

The public – and in this case Defendants – are entitled to rely on the claims of the '121 patent as they issued, not as Ampex would like them to be. *See Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1563 (Fed. Cir. 1995) (Plager, J., concurring) ("The language through which claims are expressed is not a nose of wax to be pushed and shoved into a form that pleases and that produces a particular result ...."). Ampex should not be permitted to now rewrite the claims to suit its litigation strategy.

II. ANALYSIS OF DISPUTED CLAIM TERMS IN THE '121 PATENT

Defendants address the disputed claim terms in the same order as they were addressed in Ampex's Opening Claim Construction Brief.

A. "Video"

'121 Term	Claim(s)	Defendants' Proposal	Ampex's Current Proposal
"video"	All claims	A series of related electronic images created for rapid display to allow the appearance of movement.	A "video image" is an electronic signal representation of visual information displayable in visual form on a monitor or other display device. "Video pixel data" is data representing picture elements ("pixels") of a video image. "Video data" is video pixel data or other data representing a video image. A "video still store" is a system capable of storing still video images.

[1] Citations to "A-__" refer to the Appendix to Defendants' Opening Claim Construction Brief. Citations to "B-__" refer to the Appendix to Defendants' Responsive Claim Construction Brief.

Ampex contends that a "video image" is an electronic signal representation of visual information displayable in visual form on a monitor or other display device and that "video pixel data" is data representing picture elements ("pixels") of a video image. (D.I. 300, at 13-14.) Ampex's proposed constructions find no support in the specification but instead, contrary to the teachings of *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), are based almost exclusively on *extrinsic* evidence.

1. Ampex's Proposed Constructions Read "Video" Out of the Claims.

Ampex's proposed constructions for the "video" limitations of the '121 patent are so broad that they read the term "video" out of the claims. Under Ampex's construction, for instance, the term "video pixel data" would mean exactly the same thing as the term "pixel data." All pixel data is an electronic signal representation of visual information. Adding the modifier "video" thus does not change the meaning of the phrase if "video" also covers all electronic signal representations of visual information. Under Ampex's construction, therefore, "video pixel data" and "pixel data" are the same.

The flaws with Ampex's proposed construction are illustrated by comparing the actual claim language to the claim language with the word "video" deleted:

> 8. An apparatus for storing ~~video~~ pixel data as at least one full size image at a first resolution, and at least one reduced size image thereof at a second lower resolution, comprising:
>
> random access memory means having an input port and an output port, for storing the ~~video~~ pixel data presented at the input port;
>
> said video pixel data representing the full size ~~video~~ image at a first resolution being stored in a first group of memory locations in said random access memory means;
>
> bulk storage memory for also storing the ~~video~~ pixel data and for presenting selected groups of ~~video~~ data at said input port for storage by said random access memory means;
>
> ***

('121 patent, 6:49-64, at A-18 (alterations added).) Eliminating the word "video" from the claim language does not alter the claim meaning under Ampex's proposed construction because it is evident that the "pixel data," "image," and "data" are all electronic signal representations of visual information displayable in visible form.

In contrast, Defendants' proposed construction for "video" – i.e., a series of related electronic images created for rapid display to allow the appearance of movement – gives meaning to all of the claim language. The term "video" narrows the claim language to cover a subset of electronic images. Under Defendants' interpretation, the word "video" properly modifies the terms "image," "pixel data," and "data" in a way that is consistent with both the plain meaning of the claim language and the specification. (*See* D.I. 299, at 5-8.)

2. Ampex Misconstrues the Specification in the '121 Patent.

Ampex criticizes Defendants' construction of the term "video" as being limited to "motion video" when, according to Ampex, the '121 patent uses the term "video" to encompass both "motion video" and "still video." (D.I. 300, at 15.) Ampex's argument is flawed for several reasons.

As an initial matter, Ampex mischaracterizes Defendants' proposed construction. Defendants' construction is not limited to "motion video," but instead refers to "a series of related electronic images created for rapid display that allow the appearance of movement." In other words, a "video" image can allow for the appearance of movement even when the subject of the image is not actually moving (like a television image of a still object, such as a wall). Defendants' proposed construction for "video" thus accounts for the source of the images, addresses the fact that there are a series of related images, and acknowledges the purpose for using video (i.e., to allow for the appearance of movement).[2]

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[2] Ampex also misquotes Defendants' proposed construction for "video pixel data." (*See* D.I. 300, at 14.) Defendants define "video pixel data" as "digital numerical information defining picture elements (pixels) of an image that has been derived from, or forms a part of, a series of related electronic images created for rapid display to allow the appearance of movement."

Before engaging in a lengthy discussion of irrelevant extrinsic evidence, Ampex addresses only two parts of the specification. Ampex misleadingly suggests that the patent's description of "still" images means that the word "video" does not require movement (although, as explained above, Defendants' construction only requires *allowing for the appearance* of movement created from a series of images). (D.I. 300, at 15-16.) What Ampex fails to acknowledge, however, is that the "stills" described in the patent have been taken from video inputs. The very portions of the specification that Ampex quotes, which speak of "frames of images" and "still frame images," make clear that *the stills referenced in the patent are single frames captured from a stream of video.*

Stated differently, a still video image is obtained by selecting one frame of a series of related frames:

> The video input circuit 12 may be another electronic still store system, a TV camera, or *some other source of video data from which one or more frames of a video image may be captured.*

('121 patent, 2: 65-3:1, at A-16 to A-17 (emphasis added).) What this passage clarifies is that the video source supplies multiple frames of a video image – one or more of which may be *captured*. The captured image is the "still." Ampex argues that the other "electronic still store" referenced in the above passage provides still video images, not multiple related frames. (D.I. 300, at 16.) This is not the whole story, however. A "still" provided by an electronic still store must itself have been captured initially from a multiple frame video feed. Electronic still stores do not generate images; they simply provide video data that was originally captured from a video input.

Ampex relies upon only one other portion of the specification in support of its construction for "video," and its tortured reading of that portion speaks volumes. The very first sentence of the '121 patent, in the Background of the Invention section, reads as follows:

> This invention relates to a digital electronic still store for *broadcast television signals* and *more particularly* to a still store providing a high speed multiimage scan or sort capability.

('121 patent, 1:11-14, at A-16 (emphases added).) Ampex contends that this statement does not mean that the invention necessarily relates to the use of electronic still stores for broadcast television. Defying basic logic and grammar, Ampex argues that the statement "sets forth two independent statements about what the invention relates to" such that "[t]he second phrase is not limited to a subset of the first." (D.I. 300, at 17.) Ampex thus argues that the portion of the sentence following "more particularly" is broader than the earlier portion of the sentence. Ampex's reading of the first sentence of the patent is akin to saying: "This invention relates to apples and more particularly to fruit." This is nonsensical. Plain English dictates that the second half of the sentence "more particularly" describes a subset of the thing described in the first half of the sentence (a still store system used in broadcast television).[3]

Ampex also fails to address the fact that the '121 patent is riddled with references to video from television broadcast. For example, the specification states:

- Any selected one of the stored image frames may then be communicated to a frame store from which data defining the image is repetitively read out to generate a continuously displayed ***television*** image. ('121 patent, 1:15-26, at A-16 (emphasis added).)
- Because of the rapid response rate the system becomes feasible for development and outputting of data frames containing multiple reduced size images on demand during a ***television broadcast***. (*Id.*, 2:48-51, at A-16 (emphasis added).)
- The video input circuit 12 may be another electronic still store system, ***a TV camera***, or some other source of video data from which one or more frames of a video image may be captured. (*Id.*, 2:65-3:1, at A-16 to A-17 (emphasis added).)
- In any event, out of a 525 line ***NTSC*** frame of data [the television standard in the United States] only about 484 lines represent video data. (*Id.*, 3:57-58, at A-17 (emphasis added).)

[3] Somewhat ironically, Ampex's Opening Brief repeatedly uses the phrase "in particular" consistent with its customary usage – that is, to describe something more specifically. (*See, e.g.*, D.I. 300, at 3, 30.)

- Output processor 32 is a conventional video signal output processor, for forming ***a television signal*** in a standard format, which can be used to drive a monitor 30 for viewing of the output video image by a system monitor. (*Id.*, 4:34-40, at A-17 (emphasis added).)

In short, the '121 patent consistently and repeatedly describes a "still store" system that captures, stores, and displays video images from an incoming television signal.[4]

3. Ampex Resorts to Irrelevant Extrinsic Evidence.

Unable to counter this overwhelming intrinsic evidence, Ampex sets forth a laundry list of extrinsic sources. (D.I. 300, at 16, 17-19.) The extrinsic evidence on which Ampex relies, however, is entirely divorced from the context of the '121 patent. For example, Ampex cites U.S. Patent No. 4,205,780 as ostensibly supporting its construction for "video." (D.I. 300, at 16.) This patent, which is unrelated to the '121 patent, is simply not relevant to the meaning of the word "video" *as it is used in the '121 patent. See, e.g., Goldenberg v. Cytogen, Inc.*, 373 F.3d 1158, 1168 (Fed. Cir. 2004) ("[a]bsent a formal relationship or incorporation during prosecution," the content of a patent "is not available to construe the claims" of the patent at issue).[5] Ampex's extrinsic sources say nothing of how the '121 patent uses the term "video" to describe images and data in the claimed electronic still store system, particularly in light of the intrinsic evidence to the contrary. *See Phillips*, 415 F.3d at 1319 ("[E]xtrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.").

No doubt, each party can point to isolated dictionary definitions and technical publications to support both broader and narrower definitions of the word "video." (D.I. 299,

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[4] Focusing on two prior art references cited by the examiner, Ampex argues that the Patent Office, in searching for prior art, did not limit itself to television broadcast art. (D.I. 300, at 17.) However, an examiner may consider analogous art beyond the field of the claimed invention. Tellingly, the prosecution history shows that, of the art considered by the examiner, he found two *television-related* systems – an article by Hugh Boyd and U.S. Patent No. 4,302,776 – to be most relevant, repeatedly rejecting the proposed claims of the '121 patent in view of those references.

[5] Several times during this litigation, Ampex has pointed to unrelated Kodak patents filed at different times and in different contexts to support its proposed construction of "video." These patents are also irrelevant to claim construction in this case. *See Goldenberg*, 373 F.3d at 1168.

at 6-7; D.I. 300, at 17-18.) That is precisely why the Federal Circuit has explained that "extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Phillips*, 415 F.3d at 1319.

When properly considered in the context of the '121 patent – that is, looking at how the word "video" would have been used in the field of electronic still stores in 1983 – the extrinsic evidence indicates that persons of ordinary skill in the art would have understood the word "video" to refer to a series of related electronic images created for rapid display to allow the appearance of movement, such as in television. (*See* D.I. 299, at 7-8.)

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In short, Ampex's hefty reliance on isolated pieces of extrinsic evidence only illustrates how far removed Ampex's proposed construction for "video" is from the context of the '121 patent.

B. "Said" / "The" Video Pixel Data

'121 Terms	Claim(s)	Defendants' Proposal	Ampex's Current Proposal
Said video pixel data; the video pixel data; the full size image; said full size image; the data sets	All claims	"Said" or "the" refers to the data that is first referenced in the claims. For example, the data in the random access memory, the data in the first store, the data supplied by an external source, or the data sets provided at a first resolution. This "said video pixel data" is the same data used to generate a reduced size image.	Said video pixel data; the video pixel data; the video data; said image data sets and the data sets mean data (or data sets) representing the same image as the antecedent data (or data sets).

Each asserted claim refers to "video pixel data" (or similar) in a first instance and then subsequently refers to "said video pixel data" (or similar) later in the claim. Ampex contends that "said ... data" need only be data *representing the same image* as the antecedent data. (D.I. 300, at 20.) Put differently, according to Ampex, "said ... data" need not be the

same "data" first referenced in the claims. Ampex's argument is flawed for a number of reasons.

Ampex's contention that the data can change is inconsistent with the plain language of the claims. Both parties agree that "said ... data" refers back to the "data" that was recited earlier in each claim. (D.I. 300, at 20.) It follows that "said . . . data" must be the *same* data that is first referenced in the claims. *See, e.g., Process Control Corp. v. Hydreclaim Corp.*, 190 F.3d 1350, 1356-57 (Fed. Cir. 1999) ("the discharge rate" means the "same" rate mentioned previously in the claim). In other words, the data (pixel values) that is used to generate reduced size images and stored in random access memory is the *same* data (pixel values) that is also stored for subsequent access. Had Ampex wanted to allow *different* data, it easily could have used other claim language – such as, a "first data set" in the random access memory and a "second data set" in the bulk memory. Ampex's decision to use the language "said ... data" clearly indicates its intent to describe the *same* data, and the public is entitled to rely on what the claims say. *See Phillips*, 415 F.3d at 1312 ("Because the patentee is required to 'define precisely what his invention is,' ... it is 'unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.'" (citation omitted)).

Ampex's contention that the data can change is similarly unsupported by the specification. *It is undisputed that the video pixel values that make up an image never change between the frame store and the disk in the claimed system.*

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This can be seen by tracing one pixel through the claimed still store system. In the example depicted in Attachment A (attached hereto), a single pixel consists of a luminance number (L1), a red chrominance number (CR1), and a blue chrominance number (CB1). The analog-to-digital converter generates

video pixel data for a pixel having the following luminance and chrominance values: L1=125, CR1=150, and CB1=175. The very same pixel value is transferred to the frame store, to the disk store, and back to the frame store. The patent never suggests that the pixel value changes during these movements, and Ampex does not dispute that this pixel value stays the same. (*See id.*) Thus, the specification supports Defendants' proposed construction.

Contrary to Ampex's assertion, Defendants' proposed construction for "said ... data" is consistent with the preferred embodiment of the '121 patent, which describes the "bulk memory" or "image store" as a magnetic disk drive. Ampex contends that, in this preferred embodiment, the "data" or "numbers" stored in the random access memory would be different from the "data" or "numbers" stored in the bulk memory because "[i]t was common knowledge ... that digital data transferred from random access memory to ... conventional magnetic disk drives ... would undergo processing and transformation of representation conventions for various purposes." (D.I. 300, at 22.) Ampex's argument, however, is based on an apparent misunderstanding of Defendants' construction for "said ... data." As explained above, the "said ... data" requirement of the claims means that *the pixel values* do not change, even though the same pixel value can be represented by different arrangements of "1"s and "0"s for different types of physical media.[6] Ampex does not – and cannot – dispute that the pixel values stored in both random access memory and bulk memory are exactly the same, even when the bulk memory is a magnetic disk drive.

Defendants' proposed construction for "said ... data" is also consistent with claim 12. Ampex contends that an analog-to-digital conversion (which changes data) occurs between the external source (which provides "data sets") and the image store (which stores "said ... data sets") and that, as a result, the term "said ... data sets" cannot literally require the same

[6] All digital data is represented by "1"s and "0"s.

"data sets" as were supplied by the external source. (D.I. 300, at 21.) Ampex's argument is based on the assumption that the external source of claim 12 is supplying data that has not already been converted to digital format such that it need pass through an analog-to-digital converter.

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In fact, the only way claim 12 makes sense – the only way the external source can supply the same data that is also stored by the digital image store as required by the use of the word "said" – is if it is read to require the data supplied by the external source to be digital.

That this is the correct interpretation of claim 12 can be seen most clearly by a comparison with claim 5: Claim 5 requires an "analog" input video signal and, consistent with this requirement, recites an analog-to-digital converter and does not refer to "said ... data." In contrast, claim 12 recites an external source but *no analog-to-digital converter*, and refers to "said ... data." These differences indicate that the input signal supplied by the external source in claim 12 must be digital. As a consequence, the "data" from the external source in claim 12 can be and is the same as the "said ... data" later stored by the image store and the memory.[7]

C. Automatic Input and Output Operations and Steps

Ampex contends that all of the asserted claims require the "automatic" generation and storage of reduced size images each time a full size image is stored, and that claims 7, 10, 12, 13, and 15 require the system to "automatically" output, transfer, access, or retrieve a

[7] Ampex objects to Defendants' definitions of "data" and "data set" as "late-offered." (D.I. 300, at 20.) However, one of Defendants' experts, James Storer, analyzed the phrase "said data" as used in the claims as early as May 2005. (*E.g.*, Storer Rep., ¶¶ 72-73, at B-6 to B-7.) In any event, Ampex is hardly in a position to complain, given that its constructions have been a moving target for the past year. Following the exchange of claim terms in November 2005, Ampex filed a corrected identification of claim terms in March 2006 and made further revisions in May 2006.

plurality of reduced size images. (D.I. 300, at 22.) However, Ampex cannot point to *any* claim language or portion of the specification that requires the actions listed by Ampex to be performed automatically. With no support in the patent, Ampex resorts to a number of arguments as to why its "automatic" requirement should be implied or incorporated from some other source. None have merit.

First, Ampex suggests that the "logic of the language of the claims" supports such a construction. (D.I. 300, at 23.) But the limitations Ampex relies on to illustrate this supposed "logic" do not indicate one way or another whether certain steps must be performed automatically. For example, Ampex points to the language of claim 7, which recites "random access memory means for storing," as indicating that the images must be stored automatically. But this limitation suggests no such thing: it indicates only that the random access memory means will store image data, regardless of whether it is done automatically or manually. Similarly, the other limitations referred to by Ampex will operate as required by the claims – the bulk memory will receive data, the first store will receive data, and the image store will store data – regardless of whether the steps are performed automatically or manually.

Second, Ampex alludes to the existence of a purported legal presumption that operations recited in claims must be performed automatically by a system unless stated otherwise. (*See* D.I. 300, at 10-11, 23.) There is no such presumption, and the cases to which Ampex cites support no such presumption. *See Gage v. Herring*, 107 U.S. 640, 648 (1883) (not construing a patent to require "automatic" operations, but addressing whether the accused device contained a particular structure recited in the patent); *Davies v. United States*, 31 Fed. Cl. 769, 778-79 (1994) (same). That Ampex resorts to a purported legal presumption of automatic operations only highlights the fact that the plain language of the claims in the '121 patent does not support an "automatic" requirement.

Third, again implicitly recognizing that its "automatic" requirement is not described in the '121 patent, Ampex argues that the requirement of automatic operations is somehow incorporated from the prior art. Ampex asserts that "certain basic features of the prior art would have to be carried over to the system of the '121 patent," including the "automatic" requirement identified above. (D.I. 300, at 24.) This argument has no basis in either law or logic. As a matter of law, prior art is not incorporated unless done so specifically and explicitly. *See Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000) (to incorporate by reference, patentee "must identify with detailed particularity what specific material it incorporates and clearly indicate where the material is found"). Moreover, if certain features were well known in the art at the time of filing (and, in fact, Defendants agree that all such features were well known), Ampex easily could have claimed, described, or at least referenced them had it intended to incorporate them into the '121 patent. Ampex did none of these things. On the contrary, Ampex included in the claims and specification statements expressly indicating that the operations of the claimed system are *not* automatic. (*See, e.g.*, '121 patent, 4:9-12, at A-17 (stating that "size reducer 26 *may* be employed to generate a quarter spatial resolution copy for subsequent transfer to either frame store 22 or disk store 24" (emphasis added)).)[8]

Finally, Ampex contends that, in light of the prosecution history, the claim language "responsive to" confirms that the claimed operations must be performed automatically. (D.I. 300, at 25.) Ampex selectively cites to the portion of the prosecution history in which it distinguished the Boyd prior art reference, which Ampex contends did not teach the automatic use of the size reducer, by arguing that the amended claims required generation of

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[8] Ampex's argument that the "automatic" requirement is incorporated from the prior art is also at odds with its arguments during prosecution regarding automatic operations. During prosecution, Ampex purported to distinguish the prior art on the ground that the prior art did not disclose automatic operations. ('121 file history, at A-108.) Now Ampex contends, inconsistently, that the invention requires automatic operations because such operations were well known in the prior art.

reduced size image data "in response" *to the writing* of the full size image data. (*Id.*) Ampex further contends that a person of ordinary skill in the art would have understood this argument to apply to the phrase "in response to" or "responsive to" in all issued claims. (*Id.*)

The prosecution history contains nothing close to the unambiguous statement that would be necessary to effect a "clear disavowal" of claim scope here. Ampex's argument again relies on the discarded language of a cancelled claim and overlooks several important facts from the prosecution history. First, the claim that Ampex attempted to distinguish from the Boyd reference was rejected and later cancelled. ('121 file history, at A-111 to A-115, A-121.) Second, Ampex then submitted new claims, which did not include the very language that Ampex had argued established the automatic nature of the claimed operations – i.e., "in response to" *the writing of the full size image data into the frame store*. (*Id.* at A-142 to A-164.) The new claims were instead amended to claim a size reducer that was simply "responsive to" *the random access memory*. (*Id.* at A-203.) In other words, Ampex changed the claim language so that the size reducer need not be responsive to an action (the writing of the full size image data into the frame store), but need only be responsive to a component (the random access memory). With respect to these new claims, Ampex never made an "automatic" argument as a basis for patentability. Accordingly, Ampex's earlier statements regarding the "in response to the writing" limitation (which never issued) are not applicable to the "responsive to the random access memory" limitations that ended up in the issued patent.

D. Order of Input Operations and Steps

Yet another requirement manufactured by Ampex based on the claims "taken as a whole" is that "all of the claims ... require generation of the reduced size image **prior to** storage of the images." (D.I. 300, at 22 (emphasis in original).) Ampex apparently gleans this requirement from "the manner that the claim elements are recited, as to the way that they

are interconnected and the way they interact." (*Id.* at 23.) But even Ampex's own expert, Mr. Cavallerano, disagrees with Ampex's position:

> Q. So the '121 patent does not require the generation of reduced size images prior to the storage of the full size image on disk?
>
> A. No, it does not.

(Cavallerano Dep., at A-621 (objection omitted).)

Ampex's proposed construction contradicts the general rule, which Ampex itself acknowledges (D.I. 300, at 10), that "[u]nless the steps of a method actually recite an order, the steps are not ordinarily construed to require one." *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342 (Fed. Cir. 2001). In the '121 patent, the claims plainly do not require the steps to be performed in a particular order. The words "prior to" – or any language suggesting a particular sequence for that matter – do not appear in the claims. If anything, the structure of the claims indicates that Ampex's proposed order is incorrect. For example, claim 7 – which, according to Ampex, recites elements in a manner that supports its construction (D.I. 300, at 23) – actually recites the "means for selectively generating" a reduced size image ***after*** it recites the "bulk memory means ... for storing" a full size image. ('121 patent, 6:32-45, at A-18.) Similarly, claim 8 recites "size reducing means" ***after*** it recites the "bulk storage memory." (*Id.*, 6:60-68, at A-18.) Clearly, this claim language does not require generation of a reduced size image prior to storage of the full size image.

Ampex's proposed order of operations is also in direct contradiction to the specification, which states that "when video data *received from disk store* 24 does not contain a corresponding quarter spatial resolution copy, *size reducer 26 may be employed* to generate a quarter spatial resolution copy for subsequent transfer to either frame store 22 or disk store 24." ('121 patent, 4:7-12, at A-17 (emphasis added).) This passage makes clear that, as

Ampex's expert acknowledged, a reduced size image may be generated ***after*** storage of a full size image on disk.[9]

Finally, Ampex's proposed construction is inconsistent with the prosecution history. Ampex argues that its construction requiring a reduced size image to be generated prior to storage of a full size image on disk is confirmed by "clear disavowals of claim scope made in the prosecution history." (D.I. 300, at 24.) Ampex cites a 1984 office action in which the examiner stated that an "apparent novelty" of the claimed invention was that "size reduction ... is performed ... prior to storage in the image storage." (*Id.*) Ampex argues that it adopted this "point of novelty" in a 1987 amendment, which added new claims and stated that these new claims were believed to be in accord with the novelty identified by the examiner. (*Id.*)

Ampex's recitation of the prosecution history, however, omits several key facts. First, one of the new claims added by amendment actually included a limitation requiring generation of a reduced size image "prior to" storage of the full size image on disk. ('121 file history, at A-157 to A-158.) Second, that new claim was rejected by the examiner. (*Id.* at A-166.) Third, Ampex subsequently amended the pending claims and specifically removed the "prior to" limitation from claim 7. (*Id.* at A-179 to A-180.) A complete reading of the file history thus shows that the statements Ampex selectively relies on were negated by subsequent events during prosecution and that the asserted claims were actually amended to remove any "prior to" requirement. Accordingly, Ampex did not "clearly disavow" claim scope with respect to the order in which the operations of generating a reduced size image and storing a full size image are performed.

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[9] In its discussion of the term "selective," Ampex dismisses this portion of the specification as only relevant to claim 6, not the asserted claims. (D.I. 300, at 32-33.) As discussed more fully below, there is no support for this assertion. The statement at column 4 was included in the initial application and was part of the specification *before claim 6 was even added to the application.* ('121 file history, at A-34 (initial application filed April 8, 1983); *id.* at A-106 (amendment adding claim 6 (pending claim 15) on January 30, 1986).)

E. "Corresponding"

'121 Term(s)	Claim(s)	Defendants' Proposal	Ampex's Current Proposal
"corresponding"	7, 12, 13, 15	A "corresponding" reduced size image is one that relates to a full sized image in that it is a smaller (lower resolution) version of the full sized image.	Having a working relationship. The claims, each taken as a whole, require that a relationship be maintained between each full size image and the reduced size image generated from that full size image.

Ampex contends that the claim term "corresponding" requires "that a relationship be maintained between each full size image and the reduced size image generated from that full size image." (D.I. 300, at 26.) Ampex asserts that the system described in the '121 patent "*must be able*" to "maintain the correspondence" in order to constitute an improvement over the prior art. (*Id.* at 26-27.) Neither the claims nor the specification, however, describe this purported relationship or provide any indication of how any such relationship would be maintained.[10]

Ampex attempts to identify the purported "working relationship" between full and reduced size images as requiring: (1) that the user must be able to select the browse function while viewing a full size image and in response the system must select corresponding reduced size images; and (2) conversely, that the user must be able to select a reduced size image in a browse and in response the system selects a corresponding full size image. (D.I. 300, at 26.) Ampex fails to cite ***any*** intrinsic evidence in support of this proposition and in fact there is none. (*Id.*) The '121 patent only describes two modes of operation: a "broadcast" mode in which a user may access an individual full size image; and an "editing" or "browsing" mode in which a user may access sixteen reduced size images. ('121 patent,

[10] Ampex's proposed construction stems from three dictionary definitions, which raise more questions – such as in what manner and how long a relationship is maintained – than they answer regarding the meaning of the claim language. (*See* D.I. 300, at 26.) Ampex suggests that the answers to these questions are "readily apparent" from the claims, the specification, and the cited art as a whole. (*Id.*) Not so, as the answers were not even apparent to Ampex's expert. (*See* Cavallerano Dep., at A-610 to A-612.)

4:41-57, at A-17.) Nowhere does the '121 patent describe a mode in which a user may "browse" several reduced size images and then select one of the browsed images in order to obtain a full size image, as Ampex's construction would require.

Ampex also asserts that the patent describes how such a relationship is maintained, but the record cites it provides do not support its assertion. (D.I. 300, at 27.) Ampex quotes a single sentence from the *abstract* purporting to show that full and reduced size images are stored on disk together. (*Id.*) This vague statement does not explain how any relationship between the two images is maintained, let alone how the system enables an operator to select a reduced size image in a browse in order to obtain a full size image. If anything, it simply shows that full and reduced size images can be stored on disk at the same time. In fact, even Ampex's own expert concedes that there is nothing in the claims or the specification of the '121 patent that describes how to implement such a "working relationship." (Cavallerano Dep., at A-610 to A-612.)[11]

The only language Ampex can find that actually describes obtaining a full size image by selecting a reduced size image in a browse is in the prior art '776 patent. (D.I. 300, at 6 (quoting the '776 patent).) In an implicit recognition that its so-called "working relationship" is not described in the '121 patent, Ampex asserts that this prior art capability must have somehow been incorporated into the '121 invention because, without it, the system described in the '121 patent would not be an improvement over the prior art. (*Id.* at 27; .

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[11] Ampex argues that the '121 patent explains both why and how a relationship between full and reduced size images is maintained (D.I. 300, at 27-28), but its citations to the specification completely fail to support this argument. (*See, e.g.*, '121 patent, 1:64-2:1, at A-16 (describing only that the electronic still store system could generate and output for display "a plurality of selectively positioned, reduced size images"); *id.*, 4:7-12, at A-17 ("[W]hen video data received from disk store 24 does not contain a corresponding quarter spatial resolution copy, size reducer 26 may be employed to generate a quarter spatial resolution copy for subsequent transfer to either frame store 22 or disk store 24.").)

As an initial matter, there is no legal basis for this assertion. Prior art is not incorporated by reference unless specifically and explicitly incorporated. *See Advanced Display*, 212 F.3d at 1282. Moreover, it shows that Ampex could have easily described such a relationship in the patent had it intended to do so. As the inventor acknowledged, however, Ampex's so-called "working relationship" was never part of the invention of the '121 patent.

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, By its own admission, Ampex's modified construction for "corresponding" was nothing more than an effort to avoid the Quantel PaintBox prior art. (*See* Telephone Hrg. Tr. (3/14/06), at A-549 to A-551.)

F. "Full Size Image"

'121 Term(s)	Claim(s)	Defendants' Proposal	Ampex's Proposal
"full size image(s)"; "full size video image"; "video image normally"	7, 8, 11-15	An image that is the same size (resolution) as the television display and therefore occupies the full screen of the television display, but no more.	The larger of the two sizes of image required by the claim.

Ampex proposes that the term "full size image" means the "larger of the two sizes of image required by the claims." (D.I. 300, at 28.) Ampex's construction ignores the plain meaning of the word "full." Under Ampex's construction, a "full" size image could be of any arbitrary size as long as it is larger than the reduced size image. But the word "full" connotes that something is filled to capacity (but not beyond). For example, one would expect a "full" tank of gas not to be half filled, but to be filled to capacity.

Ampex's construction also reads the term "full" out of the claims. Claim 7, for instance, uses the phrase "full size image at said first resolution." Under Ampex's construction, the phrase "full size image at said first resolution" would mean the same thing as the phrase "image at said first resolution" because, according to Ampex, the full size image is always the first input into the system and thus is always at the first resolution.

Moreover, claim 7 otherwise requires the second resolution to be a reduced resolution. The claims should be read so that each claim term has meaning. *See Merck & Co., Inc., v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) ("A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.").

Ampex's argument that a "full size image" need not be the same size as the television display is based on two pieces of evidence, neither of which supports its position. First, Ampex cites a prior art patent for the proposition that it was common in 1983 for images larger than a particular monitor screen to be displayed on that monitor. (D.I. 300, at 29.) This misses the point: the relevant question is not whether larger images *could* be displayed on particular monitors, but whether the term "full size image" describes these larger images. The patent relied on by Ampex provides no insight into the '121 patent's use of the phrase "full size image," as it does not even use the word "full" anywhere in its disclosure. Second, Ampex refers to an article describing the "Hell Chromacom" system. (*Id.*) This prior art reference is extrinsic to the '121 patent and is of little value in explaining how the '121 patent uses the term "full size image."

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G. "Direct Transfer"

'121 Term(s)	Claim(s)	Defendants' Proposal	Ampex's Current Proposal
"direct transfer"; "directly receiving"; "providing ... directly"	7, 8, 10	The transfer of data without intervening circuitry.	The transfer path is not circuitous or roundabout, and the transferred data is not significantly processed after it has left the providing or sending structure and before it has reached the receiving structure.

Both parties agree that the "direct" requirement was added to the claims during prosecution in order to overcome a prior art rejection; and that when making the amendment, Ampex's prosecuting attorney, George Almeida, characterized the "direct" connection between the random access memory and the bulk memory as having "no other circuit therebetween." ('121 file history, at A-212 to A-213; *see* D.I. 300, at 30.) Despite explicitly defining "direct" to require "no other circuit therebetween" in order to obtain the patent, Ampex now contends that "direct" should have a different meaning. Ampex should not be allowed to alter the prosecution history to suit its litigation strategy.

Ampex contends that its "direct" statement during prosecution should not be read to mean what it says because the Ampex attorney "meant to say 'no ***size reducer*** circuit therebetween'" instead of "no other circuit therebetween." (D.I. 300, at 30 n.14 (emphasis added).) Ampex's argument flies in the face of the public notice function of the prosecution history. Regardless of what Ampex's attorney supposedly "meant to say" during prosecution, the public is entitled to rely on what the claims and the prosecution history *actually* say. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) ("The claims, specification, and file history ... constitute the public record of the patentee's claim, a record on which the public is entitled to rely."). Based on Ampex's comments to the Patent Office, a person of ordinary skill in the art reading the '121 prosecution history would understand the word "direct" to mean that the transfer of data between the random access memory and the bulk memory must occur without any intervening circuitry. Ampex should

not be permitted to rewrite the prosecution history – twenty years later – in an attempt to broaden the claims of the '121 patent for litigation-inspired purposes.

Ampex also attempts to distance itself from the statement made during prosecution by characterizing it as simply an "inadvertent overstatement." (D.I. 300, at 30.) This characterization of the prosecution history fares no better. First, Mr. Almeida's remark was not an "inadvertent overstatement." On the contrary, it was an intentional representation made by Ampex during prosecution to overcome a prior art rejection. *Mr. Almeida made the statement as part of Ampex's effort to obtain the patent*, and the Patent Office relied on this distinction in allowing the '121 patent to issue. (*See* '121 file history, at A-212 to A-213.)

Second, the case law cited by Ampex regarding so-called "erroneous statements by prosecuting attorney" (D.I. 300, at 11) is inapplicable here. Ampex suggests that Mr. Almeida's remark characterizing the "direct" connection was an erroneous remark made by an attorney during prosecution and therefore should not control over the claims as issued. (*See* D.I. 300, at 11, 30.) However, Mr. Almeida's remark was not an "erroneous statement." On the contrary, it was a straightforward explanation of how Ampex intended to change the meaning of the claims by adding the word "direct" – i.e., that the image data must be transferred "directly" between the random access memory and the bulk store, not through other circuitry. Ampex repeatedly characterizes the invention of the '121 patent as providing a "speed advantage" (*e.g.*, D.I. 300, at 4-5), and that is precisely what the "direct" transfer of data relates to.

Moreover, the case law cited by Ampex deals with the very different situation in which a remark by an attorney actually conflicts with the issued claims and the court must determine which controls. *E.g.*, *Biotec Biologische Naturverpackungen GmbH v. Biocorp, Inc.*, 249 F.3d 1341, 1348 (Fed. Cir. 2001); *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1054 (Fed. Cir. 1989). In this case, there is no conflict between Mr. Almeida's

statement and the '121 patent. Mr. Almeida's statement is consistent with the claims, the specification, and the rest of the file history – including, for example, the sole figure of the '121 patent, which shows two uninterrupted lines between the random access memory and the bulk store. (*See* D.I. 299, at 14.) Accordingly, there is no need to choose between Mr. Almeida's remark and the claim language: both support Defendants' construction that the claim term "direct" means "without intervening circuitry." (*See id.*)

H. Storing Data for Full and Reduced Size Images in Random Access Memory Simultaneously

Ampex contends that claims 7, 8, 10-12, and 14 "require that video pixel data ... representing each full size image and video pixel data ... representing its corresponding reduced size image must be stored in the random access memory ... simultaneously." (D.I. 300, at 30-31.) Ampex, however, does not even attempt to identify any support in the '121 patent for the contention that claims 7, 8, and 14 contain such a requirement. Instead, Ampex can only argue that claims 7, 8, and 14 "at least strongly suggest" simultaneous storage. (*Id.* at 31.)

Ampex's argument ignores one of the claim construction principles it identified in its Opening Brief. As Ampex noted, "the doctrine of claim differentiation provides that a claim limitation added to one claim may not be 'read into' another claim that does not include that limitation." (D.I. 300, at 9.) Accordingly, the "simultaneous" limitations of claims 10, 11, and 12 – which describe storing full and reduced size images in the memory "simultaneously," or storing reduced size images in memory "along with" the full size image – should not be read into claims 7, 8, and 14 – which indisputably do not include the word "simultaneously."

I. Interaction Between Size Reducer and Random Access Memory

Ampex contends that the third element of claim 7, the fourth and fifth elements of claim 8, and the first element of claim 10, taking each claim as a whole, require that the size

reducer transfer video pixel data representing images to and receive such data from *only* the claimed random access memory. (D.I. 300, at 31.) Once again, not even Ampex's own expert agrees with Ampex's proposed construction. (*See* Cavallerano Dep., at B-22 (stating that the invention is not limited to systems in which the size reducer is coupled only to the frame store).)

Notwithstanding Ampex's contention that its construction is supported "by the literal language of the claims" (D.I. 300, at 31), it is undisputed that the word "*only*" does not appear in any of the claims. Instead, the claim language indicates merely that the size reducer must be capable of receiving data from, and transferring data to, the random access memory. Nothing in the claims suggests that the size reducer may *only* receive data from the random access memory or *only* transfer data to the random access memory.

Ampex's construction is also contradicted by the specification, which explicitly states that the size reducer can transfer image data to either the frame store *or the disk store*. ('121 patent, 4:9-12, at A-17 ("[S]ize reducer 26 may be employed to generate a quarter spatial resolution copy for subsequent transfer to either frame store 22 *or disk store* 24." (emphasis added)).) The sole figure of the patent also shows the size reducer coupled directly to both the frame store *and the disk store*, with an uninterrupted line between the size reducer and the disk store. (*Id.*, figure, at A-15.)

Ampex asserts that its proposed construction is "derived" from the prosecution history. In fact, it is at odds with the prosecution history. Ampex acknowledges that the uninterrupted line between the size reducer and the disk store was added to the figure of the '121 patent during prosecution ('121 file history, at A-119, A-132). Nevertheless, in yet another example of its selective reading of the prosecution history, Ampex attempts to dismiss this amendment as having "nothing to do with the scope of any of the issued claims in suit" because a claim specifically directed to an embodiment with such a connection was

cancelled during prosecution. (D.I. 300, at 31 n.16.) Ampex cannot overcome the important fact that both the specification and the figure of the *issued patent* explicitly describe the transfer of data between the size reducer and the disk store.

J. "Selective"; "Selectively"

'121 Term(s)	Claim(s)	Defendants' Proposal	Ampex's Proposal
"selectively generating"; "selective transfer"; "selectively transferring"	7, 8, 10, 11, 13-15	There is the ability to choose (i.e., select). "Selectively generating" means there is the ability to choose (i.e., select) whether to generate reduced size images. "Selective transfer" means there is the ability to choose (i.e., select) whether to transfer reduced size images from the size reducer through random access memory to bulk storage.	"Selective" means characterized by selection. "Select" means chosen in preference to another or others. "Selectively generating" means that, without the operator orchestrating each step, the claimed means automatically determines whether to generate a reduced size version and generates it in those cases. "Selective transfer" means that, without the operator orchestrating each step, the claimed means automatically determines whether to generate a reduced size version, generates it in those cases, and transfers the reduced size image so generated to random access memory.

Ampex's proposed construction for the "selective" limitations not only ignores, but actually contradicts, the claim language. Ampex correctly acknowledges that "selectively generating" and "selective transfer" each involves a choice of whether to generate a reduced size image or whether to transfer one or more images. Ampex, however, then turns this plain-language interpretation on its head by arguing that the system (as opposed to the user) must make the choice and therefore that the operation is automatic. (D.I. 300, at 32.) In effect, Ampex's argument amounts to an assertion that the term "selectively" should be construed to mean the exact opposite of its plain meaning: "nonselectively." Such an interpretation cannot be correct. *See, e.g., Elekta Instrument S.A. v. O.U.R. Sci. Int'l, Inc.*, 214 F.3d 1302, 1307 (Fed. Cir. 2000) ("Absent an express intent to impart a novel meaning, claim terms take on their ordinary meaning.").

Ampex's proposed construction is similarly inconsistent with the specification. The patent specifically explains that the size reducer may be employed at the user's option: "size reducer 26 ***may*** be employed to generate [a reduced size] copy." ('121 patent, 4:9-10, at A-17 (emphasis added).) Ampex does not dispute that this statement from the specification demonstrates that the size reducer may (i.e., selectively) – not must (i.e., automatically) – be used to generate a reduced size image. Instead, Ampex attempts to dismiss this statement as "irrelevant" to interpretation of the asserted claims, contending that it is relevant only to unasserted claim 6. (D.I. 300, at 32-33.) There is no support for this assertion. This statement from the specification was included in the initial application and was part of the specification *before claim 6 was even added to the application*. (*See* '121 file history, at A-34 (initial application filed April 8, 1983); *id.* at A-106 (amendment adding claim 6 (pending claim 15) on January 30, 1986).) In fact, Ampex itself cites the very same passage from the specification just five pages earlier in its Opening Brief, with respect to construction of the word "corresponding." (D.I. 300, at 28.) Ampex's argument that this statement is not relevant to the asserted claims is thus disingenuous at best.

As Ampex itself acknowledges: "The specification is ***always*** highly relevant to the claim construction analysis." (D.I. 300, at 7 (quoting *Phillips*, 415 F.3d at 1315) (emphasis added); *see also id.* ("[T]he claims 'must be read in view of the specification, of which they are a part.'" (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996))).) Accordingly, these statements from the specification, which undeniably support Defendants' proposed construction, cannot be simply disregarded.

K. "Either...Or"

'121 Term	Claim(s)	Defendants' Proposal	Ampex's Current Proposal
"either ... or"	7, 8, 10-12, 14	One or the other, but not both.	Claims 7, 10, 12: The "outputting," "transferring," or "supplying" is of either a full size image or, alternatively, a plurality of reduced size images. Claims 8, 11, 14: The "transfer" is of either a full size image or, alternatively, one or more reduced size images.

Six of the asserted claims use "either ... or" language to indicate a choice between full size images and reduced size images. Claims 7, 10, and 12 specifically require that "either" a full size image "or" multiple reduced size images be output. Claims 8, 11, and 14 require that "either" a full size image "or" one reduced size image be transferred from one storage location to another.

It appeared from the joint claim chart submitted to this Court on May 23, 2006 that Ampex agreed with Defendants' proposed construction of "either ... or" as meaning one or the other, but not both. (*See* D.I. 305, at 26.) Ampex now suggests that "either ... or" can mean "both" in claims 7, 10, and 12. With respect to these claims, Ampex contends that "it is irrelevant, and not inconsistent with, those claim elements if, when the full size image is output, a single reduced size image accompanies it."[12] (D.I. 300, at 33.) This cannot be correct.

Ampex's proposed construction for claims 7, 10, and 12 contradicts the plain meaning of the claim language. The phrase "either ... or" requires a selection to be made between two alternatives, to the exclusion of selecting both. *See Kustom Signals, Inc. v. Applied Concepts, Inc.*, 264 F.3d 1326, 1331 (Fed. Cir. 2001) ("or" should be construed to refer to alternatives, unless patentee clearly explains contrary meaning). In the '121 patent,

[12] Ampex did not include this construction in the joint claim chart, although it has made a similar argument in the past. The only difference between Ampex's previous construction and its recent reincarnation of it is that Ampex now has deleted the final clause so that it no longer reads "a single reduced size image accompanies it, but is ignored and not processed." (*See* A. Constr. (7/05), at A-499.)

the two alternatives presented are a full size image, on the one hand, and reduced size images, on the other. The "either ... or" limitations therefore require outputting either full or reduced size images, but not both. Later in its Opening Brief, even Ampex admits that "[c]laim 7 ... requires outputting of *either* a full size image, *or* a plurality of reduced size images, *but not both* at the same time." (D.I. 300, at 36 (emphases added).)

Ampex contends nonetheless that its construction, which would allow outputting both a full size image and a reduced size image, is supported by the principle that a "comprising" claim is open-ended and allows for the presence of additional components beyond those specifically required. (D.I. 300, at 33-34.) However, the "either ... or" limitations of claims 7, 10, and 12 are not themselves open-ended, even if those claims otherwise are. As explained above, "either ... or" necessarily limits the claims to require selection of one alternative to the exclusion of selecting both alternatives.

Contrary to this plain meaning, Ampex's construction mistakenly proposes that one could select *both* the first alternative as well as *part of* the second alternative. An everyday example illustrates the flaw in Ampex's reasoning: Consider a menu that provides the option of selecting *either* a salad *or two* side dishes with a meal. That option means that a customer must choose between salad and side dishes, but may not choose both. Most relevantly, it does not mean that the customer may choose *both* a salad (the first option) *and one* side dish (part of the second option). Similarly, claims 7, 10, and 12 provide the option of outputting either a full size image or multiple reduced size images. They do not permit outputting both a full size image (the first option) and one reduced size image (part of the second option). Indeed, had Ampex intended to allow this, it could have easily said so in the claims.[13]

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[13] Ampex argues that Defendants' construction of "either ... or" as used in claims 8, 11, and 14 was first disclosed long after an identification of claim construction positions was due. (D.I. 300, at 34 n.18.) This is simply not true. Defendants' expert disclosed this opinion in his report submitted in the ITC as early as May 2005.

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L. "An Input Port and an Output Port"

'121 Term(s)	Claim(s)	Defendants' Proposal	Ampex's Current Proposal
"random access memory means having ***an input port and an output port***"	8, 14	Random access memory with an input port and a separate output port.	A "port" is an interface between a communications channel and a unit of computer hardware. An "input port" is a port for inputting data into the claimed random access memory. An "output port" is a port for outputting data from the claimed random access memory.

Without citing any intrinsic evidence, Ampex contends that claims 8 and 14 may encompass either a single-port random access memory or a dual-port random access memory. (D.I. 300, at 34-35.) Ampex's proposed construction, however, fails to give ***any*** meaning to the claim language "an input port and an output port" in the limitation reciting "random access memory means having an input port and an output port." Even Ampex's expert agrees that this claim language would add nothing under Ampex's proposed construction. (*See* Cavallerano Dep. at A-616 to A-617 (claim language "an input port and an output port" does not have "particular significance").)

Ampex's proposed construction also ignores differences in the way the random access memory is recited among various claims of the '121 patent. Defendants do not dispute Ampex's contention that both single-port and dual-port random access memories were known in the art in 1983. For that reason, claims that recite simply "random access memory" – without specifying the number of ports (e.g., claim 7) – may include random access memory with either one or two ports. In contrast, because claims 8 and 14 spell out that the random access memory must have "***an*** input port ***and an*** output port," those claims can only be read to require a random access memory with two separate ports. *See, e.g.*, *Phillips*, 415 F.3d at 1314 ("Differences among claims can also be a useful guide in understanding the meaning of particular claim terms.").

M. "External Source"

'121 Term(s)	Claim(s)	Defendants' Proposal	Ampex's Proposal
"an ***external source*** for supplying a plurality of full size image data sets representative of corresponding full size images"	12	A source located outside of and at a separate physical location from the physical location of the other components of the video still store system.	A source of video images outside of the image store.

Ampex contends that the "external source" recited in claim 12 is "a source of video images outside of the image store." (D.I. 300, at 35.) Ampex also argues that the term "external" as used in claim 12 "comes from the fact that the images come from outside the system," not that the source is itself outside the system. (*Id.*) The claim language simply does not support Ampex's construction.

First, Ampex ignores the fact that, in claim 12, the term "external" modifies the term "source" – not the term "images." Simple grammar thus dictates that the *source* must be external to the rest of the still store system. Indeed, the "sources" identified in the specification – for example, another electronic still store system – are external to and at a separate physical location from the other components of the still store system. (*See* '121 patent, 2:65-3:1, at A-16 to A-17.)

Second, Ampex's new argument is yet another in a series of attempts to justify a proposed construction of "external source" to cover the precise opposite: a source that is *internal* to the system. Like Ampex's prior arguments, this new argument not only reads "external" out of the claim, but in fact directly contradicts the claim language.

Finally, Ampex's contention that "external" simply means the images come from outside the system makes no sense in the context of the '121 patent, given that all images in the disclosed electronic still store system initially "come from outside the system." Under Ampex's proposed construction, therefore, even the image store would be an "external source" because it too stores images that initially came from outside the system. Indeed,

Ampex has argued that images can be input into the system through the image store. (*E.g.*, Cavallerano Dep., at B-23 to B-24.)

N. "Respective Selected Groups of Storage Locations"

'121 Term(s)	Claim(s)	Defendants' Proposal	Ampex's Proposal
"respective selected groups of storage locations"	13, 15	In two separate locations, i.e., one for full size images and one for reduced size images.	Storage locations, chosen by the system, for storage of full size and reduced size image data sets.

The parties agree that, in claims 13 and 15, the phrase "respective selected groups of storage locations" requires storage locations for storage of full size and reduced size image data sets. Ampex contends, however, that these storage locations need not be two separate locations – one for full size image data sets and one for reduced size image data sets. (D.I. 300, at 35-36.)

Ampex's proposed construction gives no meaning to the claim term "respective." Claims 13 and 15 recite "storing both the data sets of the plurality of full size images and the data sets of the corresponding plurality of reduced size reproduction images in ***respective*** selected groups of storage locations." Use of the word "respective" in conjunction with the two types of data sets – full size image data sets and reduced size image data sets – indicates that the full size image data sets must be stored in a first location on disk while the reduced size image data sets are stored in a separate, second location (i.e., that they are stored in first and second locations, respectively). This would be similar to stating, "please place the cans and bottles to be recycled in their ***respective*** recycling bins" – which means that cans should go in one recycling bin and bottles should go in another, separate bin. Under Ampex's proposed construction, however, all that is required is selected storage locations – the word "respective" adds nothing.

Contrary to Ampex's suggestion, Defendants' proposed construction is not inconsistent with the intrinsic record. Ampex cites one sentence in the abstract of the '121

patent and one sentence in the prosecution history, which refer to storing full size and reduced size images "together" on a disk. (D.I. 300, at 36.) To the extent Ampex interprets these vague references to require storage of full and reduced size images at the same location on disk, they are inconsistent with the language of claims 13 and 15. At bottom, it is the language of the claims that defines the invention, and the claim language here is clear: the full and reduced size images must be stored in "***respective*** selected groups of storage locations." *See, e.g., Vitronics*, 90 F.3d at 1582 ("[W]e look to the words of the claims themselves ... to define the scope of the patented invention.").

O. "Selectively Accessing ... and ... Simultaneously"

'121 Term(s)	Claim(s)	Defendants' Proposal	Ampex's Current Proposal
"selectively accessing ... and ... simultaneously"	13, 15	There is the ability to choose (i.e., select) any one of the full images and any one of the reduced size images and access both at the same time.	The system performing the claimed method determines whether to access from the storage locations in bulk memory a full size image, and whether to access from the storage locations in bulk memory a plurality of reduced size images simultaneously, and then access those images.

The parties agree that the "selectively accessing ... and ... simultaneously" limitations should be interpreted similarly for both claim 13 and claim 15, but disagree on what that interpretation should be.[14] The parties agree that a single set of image data cannot be accessed "simultaneously." Under Defendants' plain construction, there are only two sets of image data described in the limitation, one full and one reduced. It thus follows that these *must be* the two sets of image data that are accessed simultaneously. A grammatical reading of the claim language, as well as a complete reading of the prosecution history, shows that Defendants' proposed construction is correct.

[14] Both parties agree that "simultaneously" means "at the same time." But apparently, Ampex disagrees with Defendants' understanding of the phrase "at the same time," characterizing Defendants' interpretation of "at the same time" to mean at the same instant in time as "nonsense." (D.I. 300, at 38 n.20.)

Claim 13 recites "selectively accessing ... a data set representing one of the plurality of full size images, and a data set representing one of the corresponding plurality of the reduced size reproduction images, simultaneously." ('121 patent, 8:60-64, at A-19.) Ampex's proposed construction of this limitation contains two major flaws.

First, Ampex interprets this language to require accessing *one* full size image or *multiple* reduced size images. (D.I. 300, at 36.) This reading of the claim is internally inconsistent. The claim language unambiguously refers to a data set representing "one" full size image and, *using identical language*, a data set representing "one" reduced size image. ('121 patent, 8:60-64, at A-19; *id.*, 10:23-26, at A-20.) Accessing *multiple* reduced size images, as Ampex's proposed construction contemplates, is simply not an option.

Second, Ampex literally rewrites the claim language to characterize the "selectively accessing ... and ... simultaneously" limitation as containing two accessing steps when, in fact, it recites just one: "selectively accessing [a full size image data set] *and* [a reduced size image data set], simultaneously." Having restructured the claim, Ampex contends that "selectively accessing ... and ... simultaneously" permits accessing a full size image data set, a reduced size image data set, or both. (D.I. 300, at 36.) This construction disregards the use of the word "and" in the claims and effectively construes it to mean "or." Ampex's current construction of "selectively accessing ... and ... simultaneously" is thus nothing more than a restatement of its initial construction, which explicitly required "and" to mean "or." (*See* A. Constr. (7/05), at A-505 ("'[S]electively' in the context of this claim element refers to the ability to select for access either the data for a full size image, *or* the data for a plurality of reduced size images. (As stated below, 'and' means that both selections must be performed by the method, but not necessarily at the same time.)" (emphasis added)); *see also id.* at A-515.)

Ampex's proposed construction attempts to undo amendments the examiner made to the claims as a condition of allowance. Claiming to find support for its construction in the prosecution history, Ampex points to early prosecution statements that refer to a "predecessor" version of the "selectively accessing" limitation. (D.I. 300, at 37-38.) But once again, Ampex's recitation of the prosecution history neglects the significance of several subsequent events, including most importantly *changes to the claim language itself.* Specifically, following a telephone call with Ampex's attorney on October 27, 1988 ('121 file history, at A-219), the examiner made the following changes to claim 13:[15]

- added the term "and" in place of "or," confirming that one full *and* one reduced size image must be accessed simultaneously (*see id.* at A-222 to A-223);
- added the phrase "and a data set representing *one*," clarifying that *one* reduced size image – not many – is accessed (*see id.*); and
- added a comma before "simultaneously," clarifying that "simultaneously" modifies the verb "accessing" (*see id.* at A-206).

The examiner specifically reported that Ampex's attorney "authorized the following Examiner's amendment." (*Id.* at A-221.) Ampex subsequently responded by stating: "Applicant notes with appreciation the allowance of claims 2-4, 6, 7, 15, 18, 19, 22, 23, and 27-31, and thanks the Examiner for the amendments suggested by him by telephone interview of October 27, 1988 and entered via his Examiner's Amendment of November 7, 1988." (*Id.* at A-233.)

Ampex does not dispute that its construction is inconsistent with the examiner's amendments, but instead attempts to dismiss them on the basis that "[a]n Examiner's Amendment is normally used to clarify and correct minor errors." (D.I. 300, at 38.) However, the Federal Circuit has upheld claim constructions giving credence to substantive examiner's amendments when, as in this case, those amendments were made to overcome

[15] The examiner also made similar changes to claim 15. (*See* '121 file history, at A-207 to A-208, A-223.)

patentability rejections and were accepted by the applicant prior to issuance. *See, e.g.*, *Schoenhaus v. Genesco, Inc.*, 440 F.3d 1354, 1358-59 (Fed. Cir. 2006) (relying on claim as issued despite the fact that requirement set forth in claim that "heal seat" be "rigid" was suggested in an examiner's amendment to overcome a patentability rejection and despite the fact that the amendment excluded the described embodiment). After all, the patentee "is only entitled to protection of the claims as issued, not as filed." *Id.* at 1359. Ampex should not be permitted to now rewrite the claims.

P. Means-Plus-Function Claims

With respect to claim 7, the parties agree that the "means ... for selectively generating" limitation is in means-plus-function form. Ampex contends that size reducer 26 of the sole figure included in the '121 patent is the corresponding structure that performs the "selectively generating" function. (D.I. 300, at 39.) An inspection of the specification, however, reveals that the '121 patent fails to disclose *any* structure for performing the function of "selectively generating" a reduced size image.[16] Claim 7 is therefore indefinite.

The figure of the '121 patent depicts only a box that is labeled "size reducer," without any suggestion of what structure is inside that box. (*See* '121 patent, figure, at A-15.) Apparently unpersuaded by its own argument that this box constitutes structure, Ampex points to *other patents* cited in the specification as purportedly describing size reducer structures. But prior art patents, even if incorporated by reference (which these are not), cannot provide corresponding structure for a means-plus-function claim. *See, e.g.*, *Default Proof Credit Card Sys., Inc. v. Home Depot USA, Inc.*, 412 F.3d 1291, 1301 (Fed. Cir. 2005) ("[M]aterial incorporated by reference cannot provide the corresponding structure necessary

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[16] The function recited in claim 7, as Ampex has recognized, is "selectively generating one of said corresponding reduced size versions." (D.I. 305, at 49-50.) Ampex's Opening Brief, however, only addresses whether the '121 patent discloses structure for "generating one of said ... reduced size versions." (D.I. 300, at 39.) Notably, Ampex fails to address – let alone identify – structure for "*selectively* generating one of said ... reduced size versions." The '121 patent discloses no such structure.

to satisfy the definiteness requirement for a means-plus-function clause."). Rather, the '121 patent must itself disclose structure sufficient to perform the recited function of selectively generating a reduced size image. As Ampex's own expert admitted, the '121 patent does not disclose such structure. (*See* Cavallerano Dep., at A-618 to A-619.)

Ampex also contends that the prosecution history for the prior art Harada patent supports its position because an examiner found that the Harada patent application's description of a size reducer was sufficient to serve as corresponding structure. (D.I. 300, at 39.) As a general matter, whether the Harada patent disclosed structure for a size reducer is irrelevant to the inquiry here: whether the '121 patent discloses structure for "selectively generating" a reduced size image. In any event, the facts relating to the Harada patent help prove Defendants' point. Harada's description of a size reducer was much more detailed than is the box labeled "size reducer 26" in the '121 patent and actually *describes structure* for reducing the size of the image: "The squeezer 4 has a specific function to reduce or squeeze the picture size to one-fourth the original and is so constructed that *three scanning lines are thinned out of four scanning lines and three sampling points on the scanning line are thinned out of four sampling points*." (*See* Original Application for U.S. Patent No. 4,802,019 to Harada, et al., at B-4.) Unlike the '121 patent, the Harada reference describes a particular size reducer: namely, one that removes three out of every four lines and three out of every four points in a line. (*See id.*)

With respect to claims 8, 12, and 14, Ampex contends that the "size reducing means" and "size reducer means" limitations are not means-plus-function limitations because the claim terms themselves sufficiently connote structure. (D.I. 300, at 39.) However, Ampex cannot rebut the presumption that these claims are written in means-plus-function form, *see Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1232 (Fed. Cir. 2001), given that the claim language describes only a function (reducing image size) without describing

any structure for performing that function. Because the '121 patent fails to disclose structure for performing the function of reducing image size, claims 8, 12, and 14 are also indefinite.

III. CONCLUSION

Defendants respectfully request that the Court adopt the proposed constructions of the claim terms and phrases proffered by Defendants and declare invalid the claims that Defendants have shown are indefinite.

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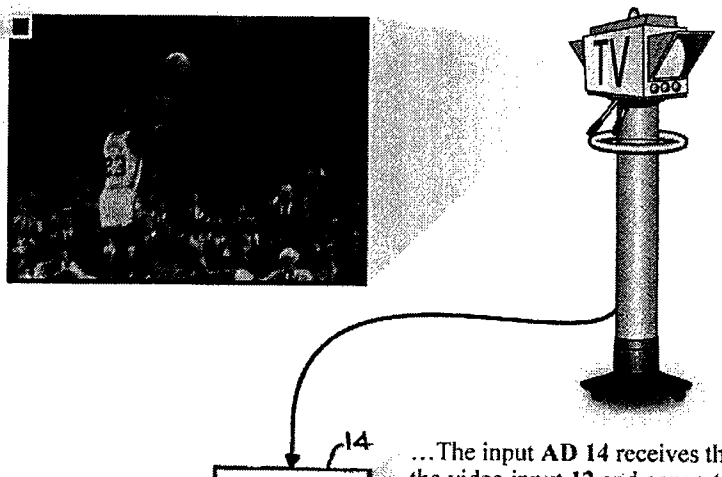
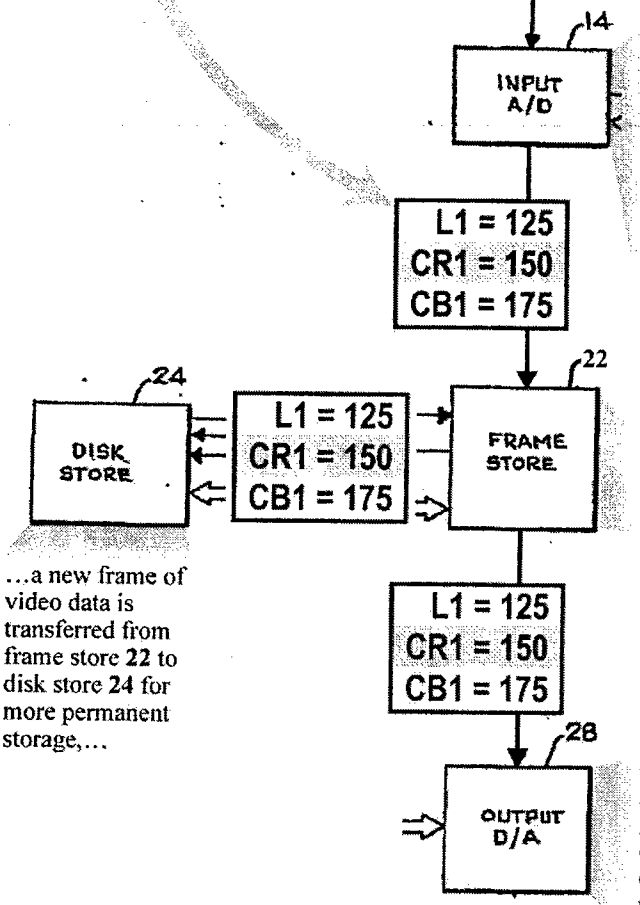
Dated: June 9, 2006

Attachment A

Transfer of Pixel Data in the '121 Patent





...The input **AD 14** receives the video signal from the video input **12** and converts the video signal to the digital sampled data form in which each pixel of video data is represented by three eight bit data bytes defining respectively luminance, red chrominance, and blue chrominance components....data is produced in a repetitive **4** byte luminance/chrominance component sequence of **L1, CR1, CB1, L2-L3, CR3, CB3, L4** and so forth. The single byte representation affords a high dynamic resolution of **256** distinguishable states for each color component....

A frame store **22**...is coupled to receive video data representing a frame of a video image from...input **A-D 14**...

...a new frame of video data is transferred from frame store **22** to disk store **24** for more permanent storage,...

During system **10** operation frame store **22** repetitively accesses stored video data to generate a continuous stream of output video data frames representing the stored image. An output digital-to-analog converter **28** receives this digital output data and converts it to an analog video signal...

CERTIFICATE OF SERVICE

I hereby certify that on June 15, 2006, I electronically filed Defendants Eastman Kodak and Altek Corporation's Redacted Responsive Claim Construction Brief with the Clerk of the Court using CM/ECF which will send notification of such filing to the following:

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I hereby certify that on June 15, 2006, I have forwarded the above-noted document to the following as noted below:

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